

Interview Summary

Application No.

10/629,321

Applicant(s)

DELANEY ET AL.

Examiner

D. L. Jones

Art Unit

1618

All participants (applicant, applicant's representative, PTO personnel):

(1) D. L. Jones

(3) _____

(2) Bret Fields

(4) _____

Date of Interview: 07 June 2007.

Type: a) ☐ Telephonic b) ☐ Video Conference
c) ☒ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1-23 and 25-30.

Identification of prior art discussed: n/a.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The Examiner and the Attorney discussed a proposed amendment to address all of the Examiner's 112 second paragraph rejections in the office action mailed 5/18/07 (see attachment).

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

DAMERON L. JONES
PRIMARY EXAMINER

Atty Dkt. No.: SKEL-007
USSN: 10/629,321

AMENDMENTS

In the claims:

1. (Currently Amended) A method of producing a flowable composition that sets into a calcium phosphate ~~containing~~ mineral product, said method comprising:
combining:
(a) a setting fluid;
(b) dry reactants comprising a calcium source and a phosphate source; and
(c) a water-soluble contrast agent comprising a radio-opaque element other than calcium that is incorporated into said calcium phosphate product;
~~in a ratio sufficient to produce said flowable material comprising poorly crystalline calcium phosphate mineral, wherein said poorly crystalline that~~
sets into a calcium phosphate mineral product that includes atoms of said radio-opaque element incorporated into said mineral product.
2. (Original) The method according to Claim 1, wherein said setting fluid comprises said water-soluble contrast agent.
3. (Original) The method according to Claim 1, wherein said dry reactants comprise said water-soluble contrast agent.
4. (Original) The method according to Claim 1, wherein said water-soluble contrast agent comprises a salt of a radio-opaque element.
5. (Cancelled)

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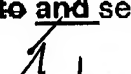
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6. (Original) The method according to Claim 4, wherein said radio-opaque element is one that is incorporated into a calcium phosphate apatite structure of said calcium phosphate containing product.

7. (Original) The method according to Claim 4, wherein said radio-opaque element is chosen from barium, oxalate, zirconium, tantalum and tungsten.

8. (Original) The method according to Claim 7, wherein said radio-opaque element is barium.

9. (Original) The method according to Claim 8, wherein said salt of said radio-opaque element is barium chloride.

10. (Currently Amended) The method according to Claim 1, wherein said ~~ratio of~~ said dry reactant ~~to~~ and setting fluid are combined in a ratio that ranges from about 0.2:1 to 0.7:1.  

11. (Original) The method according to Claim 10, wherein said flowable composition is a paste.

12. (Original) The method according to claim 1, wherein said setting fluid is a solution of a soluble silicate.

13. (Original) The method according to Claim 1, wherein said flowable composition sets into said calcium phosphate containing product in a period of time ranging from about 5 to 10 minutes.

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14. (Original) The method according to Claim 1, wherein said calcium phosphate containing product has a compressive strength ranging from about 25 to 100 MPa.

15. (Currently Amended) A method of producing a paste that sets into a calcium phosphate ~~containing~~ product, said method comprising:

(a) combining:

- mineral*
- (i) dry reactants comprising a calcium source and a phosphate source;
 - (ii) a setting fluid; and
 - (iii) a water-soluble barium salt;

~~wherein said dry reactants, setting fluid and water-soluble barium salt are combined in a ratio sufficient to provide for said paste; and~~

PA

(b) mixing said combined reactants and setting fluid ~~for a sufficient period of time to produce a paste capable of setting into a calcium phosphate containing product.~~
that sets *mineral*

16. (Original) The method according to Claim 15, wherein said setting fluid comprises said water-soluble barium salt.

17. (Original) The method according to Claim 15, wherein said dry reactants comprise said water-soluble barium salt.

18. (Original) The method according to Claim 15, wherein said water-soluble barium salt is barium chloride.

19. (Original) The method according to claim 15, wherein said setting fluid is a solution of a soluble silicate.

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20. (Original) The method according to Claim 15, wherein both said setting fluid and dry reactants comprise said water-soluble barium salt.

21. (Original) The method according to Claim 15, wherein said flowable composition sets into said calcium phosphate containing product in a period of time ranging from about 5 to 10 minutes.

22. (Original) The method according to Claim 15, wherein said calcium phosphate containing product has a compressive strength ranging from about 25 to 100 MPa.

23. (Original) A flowable composition that sets into a calcium phosphate containing product, wherein said composition is produced by the method according to Claim 1.

24. (Cancelled)

25. (Currently Amended) A kit for use in preparing a flowable composition that sets in an in vivo fluid environment into a calcium phosphate mineral product comprising calcium phosphate molecules, said kit comprising:

- (a) dry reactants comprising a calcium source and a phosphate source;
- (b) a setting fluid or components for producing the same; and
- (c) a water-soluble contrast agent comprising a radio-opaque element other than calcium that is incorporated into said calcium phosphate mineral product, ~~comprising poorly crystalline calcium phosphate mineral~~, wherein said ~~poorly crystalline~~ calcium phosphate mineral product includes atoms of said radio-opaque element incorporated into said mineral product.

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26. **(Currently Amended)** A packaged calcium phosphate cement, said packaged cement comprising:

a tubular element separated into a first compartment and at least one additional compartment by a removable barrier;

(i) dry reactants comprising a source of calcium and phosphate present in said first compartment;

(ii) a setting fluid or components thereof present in said at least one additional compartment; and

(iii) a water-soluble contrast agent comprising a radio-opaque element other than calcium that is incorporated into a calcium phosphate mineral product ~~comprising poorly crystalline calcium phosphate mineral~~, wherein said ~~poorly crystalline~~ calcium phosphate mineral product includes atoms of said radio-opaque element incorporated into said mineral product, wherein said calcium phosphate mineral product is produced upon combination of said dry reactants and setting fluid, wherein said water-soluble contrast agent is present in either said first compartment, said at least one additional compartment or in a second additional compartment.

27. **(Original)** The packaged calcium phosphate cement according to Claim 26, wherein said removable barrier is a clip.

28. **(Original)** The packaged calcium phosphate cement according to Claim 26, wherein said removable barrier is a frangible barrier.

29. **(Original)** The method according to claim 26, wherein said setting fluid is a solution of a soluble silicate.

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30. (Previously Presented) The method according to Claim 1, wherein said contrast agent is present in an amount ranging from about 10 to about 35% by weight.

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